

AMENDMENTS TO THE CLAIMS:

The following Listing of Claims will replace all prior versions and listings of the claims in the above-identified application.

Listing of Claims:

Claims 1-4 (Cancelled).

Claims 5 (New): A fuel additive to improve quality of fuel, the fuel additive comprising: about 94.5% to about 99.9% by mass of oxyalkylenated monoalkyl phenol having an alkyl group, not more than 0.1% by mass of water, and not more than 5.0% by mass of oxyalkylenated monohydroxyl alcohol.

Claim 6 (New): The fuel additive according to Claim 5, wherein monoalkyl phenol having an alkyl group containing 6 to 16 carbon atoms is oxyalkylenated to obtain the oxyalkylenated monoalkyl phenol.

Claim 7 (New): The fuel additive according to Claim 6, wherein the monoalkyl phenol is selected from the group consisting of: hexyl phenol; nonyl phenol; and dodecyl phenol.

Claim 8 (New): The fuel additive according to Claim 5, wherein the molecular mass of the oxyalkylenated monoalkyl phenol is about 100 daltons to about 2000 daltons.

Claim 9 (New): The fuel additive according to Claim 5, wherein monohydroxyl alcohol of a general formula R_2-OH , where R_2 is an alkyl group containing 1 to 4 carbon atoms, is oxyalkylenated to obtain the oxyalkylenated monohydroxyl alcohol.

Claim 10 (New): The fuel additive according to Claim 5, wherein the molecular mass of the oxyalkylenated monohydroxyl alcohol is about 100 daltons to about 910 daltons.

Claim 11 (New): The fuel additive according to Claim 5, wherein oxyalkylation is achieved via one selected from the group consisting of: oxypropylenation; and oxyethylenation.

Claim 12 (New): The fuel additive according to Claim 9, wherein the monohydroxyl alcohol is selected from the group consisting of: methanol; and ethanol.

Claim 13 (New): A process for producing a fuel additive to improve quality of fuel, the process comprising:

oxyalkylenating a mixture of about 94.5% to about 99.9% by mass of monoalkyl phenol having an alkyl group, not more than 0.1% by mass of water, and not more than 5.0% by mass of monohydroxyl alcohol; and

stabilizing the oxyalkylenated mixture with an acid ion-exchange resin.

Claim 14 (New): The process for producing a fuel additive according to Claim 13, wherein the mixture is oxyalkylenated in presence of a base catalyst.

Claim 15 (New): The process for producing a fuel additive according to Claim 14, wherein the base catalyst is KOH and the hydroxyl number is below 150 mg of KOH/g.

Claim 16 (New): The process for producing a fuel additive according to Claim 13, wherein mixture is oxyalkylenated at a temperature about 80°C to about 170°C.

Claim 17 (New): The process for producing a fuel additive according to Claim 13, wherein the oxyalkylenated mixture is stabilized at a temperature below 150°C.

Claim 18 (New): The process for producing a fuel additive according to Claim 13, wherein the alkyl group contains 6 to 16 carbon atoms.

Claim 19 (New): The process for producing a fuel additive according to Claim 13, wherein the monoalkyl phenol is selected from the group consisting of: hexyl phenol; nonyl phenol; and dodecyl phenol.

Claim 20 (New): The process for producing a fuel additive according to Claim 13, wherein the molecular mass of oxyalkylenated monoalkyl phenol is about 100 daltons to about 2000 daltons.

Claim 21 (New): The process for producing a fuel additive according to Claim 13, wherein the monohydroxyl alcohol is of a general formula R_2-OH , where R_2 is an alkyl group containing 1 to 4 carbon atoms.

Claim 22 (New): The process for producing a fuel additive according to Claim 13, wherein the molecular mass of oxyalkylenated monohydroxyl alcohol is about 100 daltons to about 910 daltons.

Claim 23 (New): The process for producing a fuel additive according to Claim 13, wherein alkylene oxide is used for oxyalkylenating the mixture.

Claim 24 (New): The process for producing a fuel additive according to Claim 23, wherein alkylene oxide is one selected from the group consisting of: propylene oxide; and ethylene dioxide.

Claim 25 (New): The process for producing a fuel additive according to Claim 13, wherein the monohydroxyl alcohol is selected from the group consisting of: methanol; and ethanol.

Claim 26 (New): The process for producing a fuel additive according to Claim 13, wherein the monohydroxyl alcohol is from about 0.1% to about 1.0% by mass.

Claim 27 (New): The process for producing a fuel additive according to Claim 13, wherein the acid ion-exchange resin contains functional sulfo groups and at least 0.1 mole of water per 1 mole of the functional sulfo groups.

Claim 28 (New): The process for producing a fuel additive according to Claim 13, wherein the acid ion-exchange resin is in a hydrogen form.

Claim 29 (New): The process for producing a fuel additive according to Claim 13, wherein the acid ion-exchange resin is at the temperature below 150°C.

Claim 30 (New): A process for producing a fuel additive to improve quality of fuel, the process comprising:

oxyalkylenating a mixture of about 94.5% to about 99.9% by mass of monoalkyl phenol having an alkyl group containing from 6 to 16 carbon atoms, not more than 0.1% by mass of water, and not more than 5.0% by mass of monohydroxyl alcohol of a general formula R_2-OH , where R_2 is an alkyl group containing from 1 to 4 carbon atoms, in the presence of a base catalyst at a temperature about 80°C to about 170°C; and

stabilizing the oxyalkylenated mixture with an acid ion-exchange resin in a hydrogen form at a temperature below 150°C.

Claim 31 (New): A fuel additive produced by the process according to Claim 13.

Claim 32 (New): A fuel additive produced by the process according to Claim 30.

Claim 33 (New): A packet of fuel additives to improve quality of fuel, the packet comprising: about 94.5% to about 99.9% by mass of oxyalkylenated monoalkyl phenol having an alkyl group, not more than 0.1% by mass of water, and not more than 5.0% by mass of oxyalkylenated monohydroxyl alcohol.

Claim 34 (New): The packet of fuel additives according to Claim 33, further comprising polybuteneamine and naphtha fraction.

Claim 35 (New): The packet of fuel additives according to Claim 34, wherein the polybuteneamine contains chlorine below 100 mg/kg.

Claim 36 (New): The packet of fuel additives according to Claim 34, wherein the naphtha fraction is of the ignition temperature of 65°C.

Claim 37 (New): The packet of fuel additives according to Claim 33, further comprising alkenyl succinimide, Mannich base and naphtha fraction.

Claim 38 (New): The packet of fuel additives according to Claim 37, wherein the naphtha fraction is of the ignition temperature of 65°C.

Claim 39 (New): A packet of fuel additives to improve fuel quality, the packet comprising:

a fuel additive produced by a process according to Claim 13;
polybuteneamine; and
naphtha fraction.

Claim 40 (New): The packet of fuel additives according to Claim 39, wherein the polybuteneamine contains chlorine below 100 mg/kg.

Claim 41 (New): The packet of fuel additives according to Claim 39, wherein the naphtha fraction is of the ignition temperature of 65°C.

Claim 42 (New): A packet of fuel additives to improve fuel quality, the packet comprising:

a fuel additive produced by a process according to Claim 30;
polybuteneamine; and
naphtha fraction.

Claim 43 (New): The packet of fuel additives according to Claim 39, wherein the polybuteneamine contains chlorine below 100 mg/kg.

Claim 44 (New): The packet of fuel additives according to Claim 42, wherein the naphtha fraction is of the ignition temperature of 65°C.

Claim 45 (New): A process for producing a packet of fuel additives to improve quality of fuel, the process comprising:

oxyalkylenating a mixture of about 94.5% to about 99.9% by mass of monoalkyl phenol having an alkyl group, not more than 0.1% by mass of water, and not more than 5.0% by mass of monohydroxyl alcohol;

stabilizing the oxyalkylenated mixture with an acid ion-exchange resin; and

combining the stabilized oxyalkylenated mixture with polybuteneamine and naphtha fraction at about 40°C to about 50°C for 4 hours.

Claim 46 (New): A process for producing a packet of fuel additives to improve quality of fuel, the process comprising:

oxyalkylenating a mixture of about 94.5% to about 99.9% by mass of monoalkyl phenol having an alkyl group, not more than 0.1% by mass of water, and not more than 5.0% by mass of monohydroxyl alcohol;

stabilizing the oxyalkylenated mixture with an acid ion-exchange resin; and

combining the stabilized oxyalkylenated mixture with alkenylsuccinide, Mannich base and naphtha fraction at about 40°C to about 50°C for 4 hours.

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes only one Figure. This sheet is provided to comply with the Examiner's request to furnish a Figure in the above-identified application, which admits to an illustration by a drawing that is absent from the application.

Attachment: One sheet of drawings.